



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENCE

FRIDAY, OCTOBER 26, 1917

THE SIGNIFICANCE OF MATHEMATICS¹

CONTENTS

<i>The Significance of Mathematics:</i> PROFESSOR E. R. HEDRICK	395
<i>An Institute for the History of Science and Civilization:</i> DR. GEORGE SARTON	399
<i>The Medical School of the University of Pennsylvania and War Service</i>	402
<i>Scientific Events:—</i>	
<i>The Total Eclipse of the Sun in 1918; The Maria Mitchell Memorial Fellowship of the Harvard Observatory; An American Hospital in London</i>	404
<i>Scientific Notes and News</i>	407
<i>University and Educational News</i>	408
<i>Discussion and Correspondence:—</i>	
<i>Reply to Dr. Bleile:</i> DR. JOSEPH ERLANGER. <i>The Correct Name for our Apple-Grain Aphid:</i> A. C. BAKER	409
<i>Quotations:—</i>	
<i>Columbia University and Professor Cattell.</i>	411
<i>Scientific Books:—</i>	
<i>West on Algæ:</i> PROFESSOR CHARLES ATWOOD KOFOID. <i>Patterson's German-English Dictionary for Chemists:</i> DR. E. J. CRANE	413
<i>Special Articles:—</i>	
<i>The Nature of the Ultimate Magnetic Particle:</i> DR. ARTHUR H. COMPTON AND OSWALD ROGNLEY. <i>Apparatus for Physiological and Physical Laboratories:</i> FREDERICK W. ELLIS.	415

SEVERAL circumstances combine to render peculiarly fitting a consideration at this time of the significance of mathematics. Of late we have heard much from real or alleged educators, tending to show a lack of appreciation on their part, if not on the part of the public, of the vital part which mathematics plays in the affairs of humanity. These attacks were beginning to receive some hearing in the educational world, on account of their reiteration and their vehemence, if not through intrinsic merit.

A counter influence of tremendous public force, whose import is as yet seen only by those most nearly interested, has now arisen through the existence of war and the necessities of war. To the layman, lately told by pedagogical orators that mathematics lacks useful application, the evident need of mathematical training on every hand now comes as a distinct surprise.

The attacks on mathematics, and the lay conception of the entire subject, centers naturally around elementary and secondary instruction. We ourselves, college teachers of mathematics, have commonly talked of current practise and of reforms, largely with respect to secondary education. The third influence which contributes toward the present situation and which may strongly affect its future development is the formation and the existence of this great association, which affords for the first time in the history of America an adequate

MSS. intended for publication and books, etc., intended for review should be sent to The Editor of Science, Garrison-on-Hudson, N. Y.

¹ Retiring Presidential Address, Mathematical Association of America, summer meeting, Cleveland, September 6, 1917.